# PROJ H3613: Development Project

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| **Module Title:** | Development Project |
| **Language of Instruction:** | English |

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| **Credits:** | 10 |

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| **NFQ Level:** | 7 |

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| **Module Delivered In** | No Programmes |

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| **Teaching & Learning Strategies:** | Self-directed learning forms the basis for this module. A critical aspect of this module is the interaction between the project supervisor and the student. The supervisor will typically meet the student on a weekly basis. The supervisor will guide and assist the student in the process of planning, designing and testing his/her project. |

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| **Module Aim:** | To give the students the knowledge, competencies and skills to plan, implement and report on a specified electronic project. |

| **Learning Outcomes** | |
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| *On successful completion of this module the learner should be able to:* | |
| LO1 | Complete detailed research on an assigned problem/subject area. |
| LO2 | Generate a fully resourced plan for a specified project, e.g. Gantt chart and monitor progress. |
| LO3 | Deliver illustrated oral presentations describing project progress and overall achievements. |
| LO4 | Design, prototype and test the project hardware and/or software (where appropriate). |
| LO5 | Write a formal report on the project. |
| LO6 | Understand the need for high ethical standards in the practice of engineering design, for environmental conservation and public safety. |

| **Pre-requisite learning** |
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| ***Module Recommendations***<br>*This is prior learning (or a practical skill) that is recommended before enrolment in this module.* |
| No recommendations listed |
| ***Incompatible Modules***<br>*These are modules which have learning outcomes that are too similar to the learning outcomes of this module.* |
| No incompatible modules listed |
| ***Co-requisite Modules*** |
| No Co-requisite modules listed |
| ***Requirements***<br>*This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed.* |
| Analogue Electronic Systems or equivalent; Digital Electronic Systems or equivalent |

# PROJ H3613: Development Project

## Module Content & Assessment

| Indicative Content |
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| **Project Brief**<br>Each student will be assigned a project brief, which includes the project specification & target dates The project brief will be discussed with each student to ensure that it is clearly understood. Students may propose their own breif, the suitability of which will be assessed by the project supervisors. |
| **Project Plan**<br>Students will be expected to develop a detailed project plan using project planning tools. (MSProject or similar) |
| **Design**<br>Student will research potential solutions to the problem, compare and contrast available options: Hardware – select components,develop block diagrams, design circuits etc. Software - develop flowchart, program development etc. Students should simulate and prototype sub-circuits. |
| **Presentation**<br>At the end of the first semester, each student will be required to make a presentation on the progress of their project up to that point. A similar presentation will be made at the end of semester 2 in which the overall achievements will be described. |
| **Log**<br>Students will maintain a log of all activity throughout the period of the project. |
| **Implementation**<br>Electronic CAD will be used to produce a printed circuit board layout. If required software will be developed using suitable development tools (where applicable). The system will be assembled. |
| **Test & debug**<br>The system should be tested in order to debug the system and to ensure that it meets the agreed project specification. |
| **Final Report**<br>Each student is required to produce a formal project report. |

| Assessment Breakdown | % |
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| Project | 100.00% |

No Continuous Assessment

| Project | | | | |
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| *Assessment Type* | *Assessment Description* | *Outcome addressed* | *% of total* | *Assessment Date* |
| Project | Intrim progress report - multimedia presentation. | 3 | 5.00 | Sem 1 End |
| Project | Project research & development: Project Plan, Design,Hardware/software development, simulations & prototyping. | 1,2,4 | 35.00 | n/a |
| Project | System construction and testing: PCB Layout, assembly & final system test. | 4,6 | 25.00 | n/a |
| Project | Multimedia presentation of final report summary | 3 | 10.00 | Sem 2 End |
| Project | Final report | 5,6 | 25.00 | Sem 2 End |

No Practical

No End of Module Formal Examination

**SETU Carlow Campus reserves the right to alter the nature and timings of assessment**

# PROJ H3613: Development Project

## Module Workload

| Workload: Full Time | | |
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| *Workload Type* | *Frequency* | *Average Weekly Learner Workload* |
| Laboratory | Every Week | 4.00 |
| Independent Learning | Every Week | 3.00 |
| | Total Hours | 7.00 |